

Work Order ID 162446

Tuesday, June 06, 2017 4:57:33 PM

162446

Page 1

Item ID: D3205-1 Accept ***N9000040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Pedal Bracket
 Start Date: 6/8/2017 Start Qty: 6.00 ***6*** Cust Item ID:
 Required Date: 6/22/2017 Req'd Qty: 6.00 ***6*** Customer:
 Reference:

Approvals: Process Plan: **DAS 21** Date: **JUN 08 2017** Tooling: Date:
 QC: **9-89** Date: SPC (Y/N): Date:
 Run Start ***NR1***
 Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3205	Rev C

100	BAND SAW	0.00							DAS 49 9-89
100									
Bandsaw	Memo	0.73							
Jeaspa Bandsaw	Cut blanks: 3.250" x 2.500" x 4.250" long Bar (+0.030/-0.000)								

110	HAAS CNC VERTICAL MACHINING #1	2.80							DAS 20 9-89
110									
HAAS 1	Memo	3.41							
HAAS CNC vertical machine #1	Machine D3205-1 as per Folio FA346 and Dwg D32051 identify as D3205-1								
	Deburr and Tumble								

120	QC2- Inspect parts off machine FAI/FAIB	0.00							DAS 49 9-89
120									
QC	Memo	0.06							
Quality Control									

17/06/14

DQA:

Date: 2017-07-10

QA Closed: ~~REVIEW~~

Date: JUN 28 2017

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

Work Order: <u>162446</u> Part No: <u>3205-1</u> NCR No: <u>17-6471</u>		DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Cross tube ☐ Water Jet ☐ Engineering ☐ Machining ☒ Small Fab ☐ Prod. Eng. Coord. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☐ Supplier ☐					
Date: <u>17-06-13</u>		Step #: <u>110</u>		QTY Effective: <u>①</u>			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition			<u>PD 17-06-13</u> DAS completed By <u>49</u> 9-89 <u>17/06/13</u> Lead hand-off Supervisor Approval Verification <u>SVQ</u> <u>17-06-13</u> QC / QA Coordinator Approval <u>PD 17-06-13</u>		
Take the origin at the wrong section of the part on the 3 rd opp The part is off (0.071), the result of the part have a step at the ear section				Scrap destroy no replace					
Root Cause Environment ☐ No Re-verification ☐ Design ☐ Operator ☒ Doc/Data ☐ Offset/Setup ☐ Equip/Tooling ☐ Supplier ☐ Handling/Pre ☐ Training ☐ Material ☐ Use for Testing ☐ Internal Transport ☐ Poor Information ☐ Tribal Knowledge ☐ Rushing ☐ LOA ☐ Product Improvement ☐ Substation ☐ Process Improvement ☐ Past Expiry Date ☐ Manufacturing Process ☐ Misidentified ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		FAULT CATEGORY Temperature/Cure ☐ Set-up ☒ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☒ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☒ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
OTHER: ☐									

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Setup Start *NS1*

Revision ID:

Stop *NS2*

Cust Item ID:

Customer:

Reference:

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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0.00

121

Mill Conv

Memo

0.73

Conventional Milling Machine

COUNTER SINK AS PER DWG

32
9-89

122

QC2- Inspect parts off machine FAI/FAIB

0.00

122

QC

Memo

0.06

Quality Control

DAS
32
9-89

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.12

Quality Control

DAS
44
9-89

917-06-22

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: <u>162446</u> Part No. <u>D3205-1</u> NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☒ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date: <u>17.06.16</u>		Step #: <u>110</u>		QTY Effective: <u>5</u>		MRB (QSI042) Approval DAS 9 9-89 17.06-16			
Description Work Order Deviation found on qty 5 parts that countersink hole is varies from .460"-.474" and should be .500" ± .010" 2.C. material not square dimension of each part 1. .460" 2. .463" 3. .472" 4. .473" 5. .474"				Disposition Scrap Qty 5 and destroy High risk of alignment issue if customer purchase for kit for a replacement. <u>recommendation:</u> 1. Square off material before machining. 2. reprogram and update folio 3. drill all holes at last step				Completed By 17/06/19 Lead hand / Supervisor Approval Verification 17-06-21 QC / QA Coordinator Approval DAS 9 9-89 17.06-16	
Root Cause Environment ☐ Design ☐ Doc/Data ☒ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ ☒ Manufacturing Process Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ ☒ Folio/Program Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ ☒ Over/Under tolerance Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
OTHER: _____									

Work Order ID 162446

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Item ID: D3205-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Pedal Bracket
Start Date: 6/8/2017 Start Qty: 6.00 ***6*** Cust Item ID:
Required Date: 6/22/2017 Req'd Qty: 6.00 ***6*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Chemical Conversion Coat per QSI005 4.1	0.00							
140	HandFinish	0.25				(4)			2017/06/23 BER
Hand Finishing	Memo								
150	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3	0.00							
150	Powdercoat	0.42							H 17-06-26 2333
Powder Coating	Memo								
	Note: Cover the thread hole for D3205-1 before powder coat.START TIME: 10:30 OVEN TEMPERATURE: 200° FINISH TIME: 11:00								
160	QC3- Inspect Part Finish	0.00							
160	QC	0.06							DAS 30 SSE
Quality Control	Memo					(4)			JUN 26 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Work Order ID 162446

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162446

Page 4

Item ID: D3205-1 Accept ***N900040100*** Setup Start ***NS1***
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	Identify as per dwg & Stock Location: <u>GA</u>	0.00			DAS				
170					30	<u>4</u>			JUN 26 2017
Packaging	Memo	0.06			9-89				
Packaging	LOCATION : GA								
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.60							
Quality Control									

17/6/27 JJ

JUN 26 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : ☐						
Misidentified ☐	☐	Past Due ☐							

Picklist Print

Monday, June 05, 2017 4:53:49 PM

Work Order ID: 162446

162446

Parent Item: D3205-1

D3205-1

Parent Item Name: Pedal Bracket

Start Date: 6/8/2017

Required Date: 6/22/2017

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP A04.06.09New issueKJ/RF
IPP Rev:B 08-12-16 attach DEO DD verified by:EC
REV:C AS PER REV B 12-03-23 JLM VERIFIED BY:EC

IPP

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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M7075T73B2.500X03.2
5

Purchased

No

100

f

7.6400

0.3646

2.302737

M7075T73B2 500X03 25

**

7075-T73 Bar 2.50 x 3.25

DAS
49
9-89

17/06/09

Location

Loc Qty

Loc Code

MAT008

7.64

m135792

3.64

m137654

4

m131479

1.79

2

DART AEROSPACE LTD		Work Order: 162446
Description: Pedal Bracket		Part Number: D3205-1
Inspection Dwg: D3205	Rev: C	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.100	+/-0.010	1.104	/		vern	mark-05
0.250	+/-0.010	0.260	/		"	
R0.38	+/-0.030	0.380	/		RG	
0.125	+/-0.010	0.135	/		vern	mark-05
0.250	+/-0.010	0.258	/			
2.380	+/-0.010	2.384	/			
1.380	+/-0.010	1.381	/			
0.500	+/-0.010	0.507	/			
0.880	+/-0.010	0.878	/			
Ø0.470 x 100°	+0.006/-0.001	0.480	✓		caliper	D.C.L. 08
0.440	+/-0.010	0.440	/		vern	mark-05
0.600	+/-0.010	0.601	/		"	
1/4-28UNF-313	N/A	1/4-28unf	✓			
0.250	+/-0.010	0.248	/		vern	mark-05
Ø0.257	+0.006/-0.001	0.257	/			
1.750	+/-0.010	1.749	/			
0.870	+/-0.010	0.869	/			
0.440	+/-0.010	0.442	/			
R0.25	+/-0.030	0.250	/		RG	
3.000	+/-0.010	2.999	/		vern	mark-05
3.96	+/-0.030	3.956	/		"	
0.409	+/-0.010	0.409	/		Height	31006
0.808	+/-0.010	0.808	/		"	
2.562	+/-0.010	2.560	/		vern	mark-05

Measured by: 9899	Audited by: 44	Preliminary Approval:
Date: 17/06/14	Date: 17-06-22	Date:

Rev	Date	Change	Revised by	Approved
A	05.02.17	New Issue	KJ/JLM	
B	12.05.14	Dimensions updated per Dwg Rev B	KJ	
C	13.02.27	Dwg Rev updated	KJ	

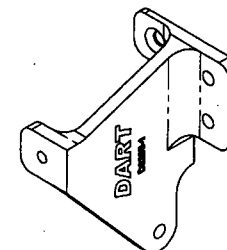
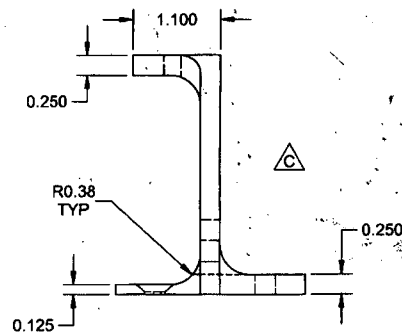
DAS
32
9-89

17/06-21

2
9.10.00

1000

8



NO. 162,446 MJS

170608

RELEASE
2013-02-07

NOTES

- 1) MATERIAL: 7075-T73 ALUMINUM BAR
PER QQ-A-200/11 OR QQ-A-250/12
REF DART SPEC M7075T73B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GREY SANDTEX (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.3
- 7) WEIGHT: 0.28 lbs

C	REMOVED GRAIN DIRECTION ON -1 (ZN B5-1) SEE PREVIOUS REV. FOR DETAILS. REF. PAR12-212.	SFM	12.12.24
B	CONVERT DRAWING TO STANDARD FORMAT; 3.96 WAS 3.99 (ZN C2-1); 18" WAS 18" (D3-1); 42" WAS 41" (ZN C4-1); CHANGE DIMENSIONS TO 2 DEC. PLACES; D6-1, C4-2, D5-2, C7-2; ADD CHAMFER (ZN D3-2); REMOVE ENGRAVING ON D3205-3	RF	12.02.24
A	NEW ISSUE	RF	04.01.27
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD	
DRAWN	SFM	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV.
MFG. APPR.		D3205	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		BRACKET	NT
DATE	12.12.24	COPYRIGHT © 2004 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED TO THE EXTENT OF PERMISSION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY OTHER FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.	

